

Name:

Solutions

1. Multiply $x(x-4) = x^2 - 4x$

2. Multiply $5x(x^2 + 2x - 4) = 5x^3 + 10x^2 - 20x$

3. Multiply $(x-2)(x-5) = x^2 - 7x + 10$

4. Multiply $(x+2)(x-5) = x^2 - 5x + 2x - 10 = x^2 - 3x - 10$

5. Multiply $(x+5)(x-5) = x^2 - 5x + 5x - 25 = x^2 - 25$

6. Multiply $(2x+5)(4x+3) = 8x^2 + 6x + 20x + 15 = 8x^2 + 26x + 15$

7. Multiply $(2x+5)(4x-3) = 8x^2 - 6x + 20x - 15 = 8x^2 + 14x - 15$

8. Factor $x^2 - 4x = x(x-4)$

9. Factor $5x^3 + 10x^2 - 20x = 5x(x^2 + 2x - 4)$

10. Factor $x^2 - 7x + 10 = (x-2)(x-5)$

11. Factor $x^2 - 3x - 10 = (x-5)(x+2)$

12. Factor $x^2 - 25 = (x-5)(x+5)$

13. Factor $8x^2 + 26x + 15 = (2x+5)(4x+3)$

14. Factor $8x^2 + 14x - 15 = (2x+5)(4x-3)$

15. Solve $x(x-4)=0$ $\{0, 4\}$

16. Solve $(x-2)(x+5)=0$ $\{2, -5\}$

17. Solve $(x+5)(x+5)=0$ $\{-5, 5\}$

18. Solve $(2x+5)(x+3)=0$ $\{-\frac{5}{2}, -3\}$

19. Solve $(2x-5)(4x+3)=0$ $\{\frac{5}{2}, -\frac{3}{4}\}$

20. Solve $5x-20=0$ $5(x-4)=0$ $\{4\}$

21. Solve $5x^2-20x=0$ $5x(x-4)=0$ $\{0, 4\}$

22. Solve $x^2+7x+10=0$ $(x+2)(x+5)=0$ $\{-2, -5\}$

23. Solve $x^2+3x-10=0$ $(x+5)(x-2)=0$ $\{-5, 2\}$

24. Solve $x^2-25=0$ $(x-5)(x+5)=0$ $\{5, -5\}$

25. Solve $8x^2+26x+15=0$ $(2x+5)(4x+3)=0$ $\{-\frac{5}{2}, -\frac{3}{4}\}$

26. Solve $8x^2+14x-15=0$ $(2x+5)(4x-3)=0$ $\{-\frac{5}{2}, \frac{3}{4}\}$